AKODIS, Docent M. M.

USSR/Electricity - Rectifiers Oct 52
Arc-Backs

"Controlling the Rate of Increase of Inverse Voltage in Circuits With Ionic Rectifiers," Docent M. M. Akodis, Cand Tech Sci, Ural Polytech Inst imeni Kirov

"Elektrichestvo" No 10, pp 31-38

Shows that saturable reactors can be used in circuits with ionic rectifiers to reduce considerably the rate of increase of inverse voltage in the rectifier and thus increase its

231T24

power and resistance to arc-backs. Submitted 15 Dec 51.

231T24

AKODIS, M.M.

Elec Eng 10, 14

Electrical Engineering Abst.
Section B
March 1954
Installations.
Switchgear.

621.316.57.001.4

523. Principles of the design of artificial circuits for testing arc-quenching devices. M. M. AKODIS. *Elektrichestvo*, 1953, *No.* 5, 18–22. *In Russian.*

The influence of the constants of the testing circuits on the quenching processes is analysed. It was found that the main factor determining the success or otherwise of the quenching device is the rate of energy supply to the arc, this, in turn depending on the rate of rise of the current in the circuit or, in terms of the circuit parameters, on the reactance in the circuit of the recovery voltage. In the last event, it is the ratio of this reactance to the resistance of the arc gap after the zero-passage of the current, or the fact whether or not the energy supply from the source can compensate the dissipation of energy by the de-ionizing action of the quenching device which determines the re-ignition of the arc. It is found that transformer test circuits stepping-up the voltage of a source of commercial frequency cannot provide conditions corresponding to service conditions for tests of the full breaking capacity. On the other hand, impulse circuits test much more severely than would correspond to actual service conditions, since the effect of the recovery voltage lasts only for a short fraction of a half-period. A suitable circuit is presented in which the inductance of the h.v. circuit is equal to the inductance of the natural circuit for full-power short-circuit tests and the h.v. is supplied at the point of connection of two-circuit breakers in series. In this circuit the inductance of the branch of the recovery voltage and the capacitance in parallel with the shunting device are independent of the parameters of the circuit of the testing current. This enables the power of the recovery-voltage circuit to be made equal to the full breaking capacity to be tested and assures a sufficiently long application of the recovery voltage.

B. F. KRAUS

AKODIS, M. M.

Electrical Engineering Abstracts
May 1954
Transformers

1904. Influence of the capacitances of electronic converters on the extinction of the valves. M. M. AKODIS. *Elektrichestvo*, 1953, *No.* 9, 43–7. *In Russian.*

The capacitances of rectifier installations which in some cases improve the reliability of the operation of these installations by reducing the rate of rise of the inverse voltage after the conclusion of the current commutation, may in other cases, particularly in inverter operation, cause breakdowns by extinction of the valves by the discharge currents of the capacitances at the instant of the ignition of the following valve. An investigation is made of the conditions for commutation of the h.f. currents of the capacitor discharge, with and without the intervention of back-firing, on model circuits in which the effects of shunting and interphase capacitances could be separated, on models of bridge circuits in which the valves were shunted by capacitances, etc. E. F. KRAUS

Ural Polytechnic Inst.

AKODIS, M. M.

AID P - 447

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 10/34

Authors : Akodis, M. M., Dr. of Tech. Sci., Bril', M. V. Eng., Rudnyy, V. M., Eng., and Khirvonen, Kh. P., Eng.

Title : Study of Reliable Ionic Valve Action of Gas-Filled Tubes in an Experimental Circuit

Periodical : Elektrichestvo, 7, 52-56, Jl 1954

Abstract : Experiments were made with cathode-ray oscillographer in order to determine the moment of back-fire, the value of inverse voltage, and the moment of rupture. The dependence of valve action of the I-50/5000 ignitron from the rate of growth of inverse voltage is presented. 8 diagrams, 3 tables and 6 Russian references (1940-53).

Institution : Ural Polytechnical Institute im. Kirov

Submitted : Mr 6, 1954

AKODIS, M.M., prof., doktor tekhn.nauk; RUDNYY, V.M., assistent

Ensuring the necessary burning time of arcs during tests of arc-extinguishing devices. Izv. vys. ucheb. zav.; elektromekh. no.1:71-78 '58. (MIRA 11:6)

1.Ural'skiy politekhnicheskiy institut.
(Electric arc)

AUTHOR: Akodis, M.M., Professor, Doctor of Technical Sciences (Sverdlovsk) 105-58-5-10/28

TITLE: Artificial Methods of Obtaining High Efficiency for the Study of Arc-Extinguishing Devices (Iskusstvennyye metody polucheniya bol'shoy moshchnosti dlya issledovaniya dugogasyashchikh ustroystv)

PERIODICAL: Elektrichestvo, 1958, Nr 5, pp. 42-47 (USSR)

ABSTRACT: In the 1. chapter the scheme for testing switches is dealt with and the following two variants are given: 1.) The full voltage of the electric circuit III igniting the arc is applied to the switches before the current to be switched off attains its zero value. This warrants ignition of the light arc in both switches with a relatively low voltage of the circuit III. 2.) First, the voltage of circuit II, which is regenerated, is applied to the switches. If repeated ignition occurs in the switches investigated, the synchronizing devices cause circuit III to respond, and the latter is then supplying the voltage necessary for repeated ignition in the second switch. At the end of the half-period of burning of the arc, circuit II produces a high voltage. If the switch investigated does not extinguish the arc, the process is repeated. Thus the number

Card 1/2

of experiments necessary for the determination of the possibility of switching off the switch is reduced, but a higher degree of insulation of the circuit to be switched off or the installation of a protective reactor in the circuit becomes necessary. In the 2. chapter the various possibilities of switching on the circuit of the regenerating voltage are mentioned. This test can be carried out according to the same principle as that upon which testing of the switches is based. Two valves must serve as distributors. The high-voltage circuit causes the highest expense. There are are 11 figures, and 7 references, 6 of which are Soviet.

SUBMITTED: December 24, 1957

AVAILABLE: Library of Congress

1. Switches--Operation 2. Switches--Test methods

SOV/143-58-10-5/24

9(2)

AUTHOR: Akodis, M.M., Professor, Doctor of Technical Sciences

TITLE: Simulating Networks for Testing the Cut-Off Power of Circuit Breakers

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Energetika, 1958, Nr 10, pp 29-39 (USSR)

ABSTRACT: Experimental investigation of arc extinction devices and experimental determination of the cut-off power of circuit breakers are necessary for developing and manufactuing high-voltage circuit breakers. The necessity of testing circuit breakers for 25 million kilo-volt-amperes shows the importance of developing simulating networks for increasing the power of circuit breaker test installations. Such networks could reduce the high costs for such installations by five to ten times. Extensive work on the development of these simulating networks was conducted in many countries during the past 25 years. Many different networks were suggested, but none of them provided a full equivalent of the circuit breaker operation under

Card 1/3

Simulating Networks for Testing the Cut-Off Power of Circuit Breakers

different experiments. There are 6 circuit diagrams, 3 graphs and 11 references, 8 of which are Soviet, 2 German and 1 English.

ASSOCIATION: Ural'skiy politekhnicheskiy institut imeni S.M. Kirova (Ural Polytechnic Institute imeni S.M. Kirov)

SUBMITTED: July 8, 1958

AKODIS, M.M., doktor tekhn. nauk, prof.

Effect of the method of connecting the circuit of regenerating voltage of the synthetic circuit for testing circuit breakers on distortion of the cut-off current. Trudy Ural. politekh. inst. no.90:102-111 '58. (MIRA 13:2)

(Electric circuit breakers--Testing)

SOV/143-59-1-14/17

8(6)
AUTHOR: Akodis, M.M., Doctor of Technical Sciences, Professor

TITLE: Voltage Surges and Insulation Levels in Electric Systems (Perenapryazheniya i urovni izolyatsii elektricheskikh setey)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Energetika, 1959, Nr 1, pp 97-115 (USSR)

ABSTRACT: The transmission of electric energy over greater distances has led to a speedy growth of new powerful systems with voltages up to 500 kV. The cost of these systems depending very much on their insulation level, intensive studies have been carried out in many countries of the working characteristics of insulation and of the factors determining the necessary insulation level in electric systems. The author compares recent developments in this field in the USSR and in the United States and concludes that the study of voltage surges and of methods for their limitation has permitted considerable reduction of the insulation level in high-voltage systems. Further

Card 1/3

considerably the voltage surges in the system. The reduction of the insulation level in the system and in the switch makes it even more imperative to find the proper relationship between the insulation against the ground and between the open contacts. Grounding transformer neutrals in systems of 110 kV and more must permit the installation of 75% arresters in substations and 80% arresters in the lines. There are 6 tables, 3 diagrams and 18 references, 6 of which are Soviet and 12 English.

ASSOCIATION: Ural'skiy politekhnicheskiy institut imeni S.M.Kirova (Ural Polytechnical Institute imeni S.M.Kirov)

PRESENTED: By the Kafedra tekhniki vysokikh napryazheniy (Chair of High-Voltage Engineering)

SUBMITTED: November 18, 1958

AKODIS, M.M., prof., doktor tekhn.nauk

Protection from internal overvoltages. Izv.vys.ucheb.zav.; energ. 3 no.5:1-14 My '60. (MIRA 13:6)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova. Predstavlena kafedroy tekhniki vysokikh napryazheniy.
(Electric lines) (Electric protection)

2

S/144/60/000/04/009/017
E194/E455

AUTHORS: Akodis, M.M. (M:Khail Miromovich), Doctor of Technical Sciences, Professor and Korsun, P.A., Aspirant

TITLE: An Experimental Investigation of Synchronization Methods in Synthetic Switchgear-Testing

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1960, Nr 4, pp 57-66 (USSR)

ABSTRACT: In circuits for the synthetic testing of circuit-breakers, the breaker under test is isolated from the supply by an auxiliary switch, and the recovery voltage is applied to it from a bank of capacitors feeding through an inductance. The recovery voltage may be applied either at the instant of current interruption, with a scatter of a few microseconds, or about half a cycle before the current is interrupted, with a permissible scatter of some tens of microseconds. Accurate and simple synchronization is required under conditions of high-speed transient magnetic fields and this article describes circuits that satisfy these conditions. Circuits in which the recovery voltage is applied at the instant of current interruption are

Card 1/4

S/144/60/000/04/009/017
E194/E455

An Experimental Investigation of Synchronization Methods in Synthetic Switchgear-Testing

considered first. The inherent recovery voltage of the interuppted circuit may serve to provide the synchronization, using the circuit shown in Fig 1. Here the inherent recovery voltage opens a blocked thyratron to apply the test recovery voltage. A recommended thyratron grid circuit is shown in Fig 2a. Tests were made using the circuit of Fig 1 in a station for the synthetic testing of switchgear; the experimental test conditions are described and typical test oscillograms are shown in Fig 3. The main test results, given in Table 1, indicate that on breaking a current of 1000 A with a frequency of 50 c/s the delay in connecting the recovery voltage was 15 microseconds, with a scatter of ± 0.8 microseconds. This and other results quoted are considered very satisfactory. Synchronization using a peak transformer operated from the interrupted current is then considered. The peak transformer is briefly described with reference to the diagram of Fig 4. It was found that to adjust the delay

Card 2/4

S/144/60/000/04/009/017
E194/E455

An Experimental Investigation of Synchronization Methods in Synthetic Switchgear-Testing

by altering the air gap was too coarse. Instead, fine adjustment was obtained by altering the compression of the peak transformer core; typical calibration results are tabulated. Coarser adjustments could be made by slightly altering the engagement of the yoke, as illustrated diagrammatically in Fig 4a. Used jointly, the two methods of adjustment gave satisfactory control. Typical oscillograms obtained in the course of the tests are shown in Fig 5 and main results are given in Table 3. It is concluded that a very satisfactory synchronizing circuit can be based on a peak transformer even though it is such a cheap and simple device. The precise operation of the resulting synthetic switchgear-testing circuit will be seen from the oscillogram of Fig 6 which shows passage of the current through zero and application of recovery voltage. Circuits in which the recovery voltage is applied just before the current is interrupted are then described. The necessary signals can be obtained from a two-winding peak

S/144/60/000/04/009/017
E194/E455

An Experimental Investigation of Synchronization Methods in Synthetic Switchgear-Testing

transformer with adjustable air-gap, as shown diagrammatically in Fig 4b. The main core is made of fermalloy and carries a secondary winding connected to the thyratron grid circuit, as shown in Fig 2b. The primary winding, on the other limb, is connected to the current being interrupted. A typical oscillogram is given in Fig 7 and the test results in Table 4. The tests were made with an interrupted current frequency of 154 c/s so that at the normal frequency of 50 c/s, the displacement would be three times greater. The tabulated results demonstrate the possibility of obtaining the required displacement of the peak and of controlling the displacement smoothly. The scatter in the tests was ± 5 microseconds, which is satisfactory. There are 7 figures, 4 tables and 3 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (im. Kirova)
(Ural Polytechnical Institute)

SUBMITTED: December 30, 1959

Card 4/4

S/196/61/000/009/034/052
E194/E155

AUTHOR: Akodis, M.M.

TITLE: An installation for testing circuit breakers, using synthetic circuits

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.9, 1961, 36, abstract 9I 234. (Tr. Ural'skogo politekhn. in-ta, Sb. 77, 1960, 5-21)

TEXT: In synthetic testing of circuit breakers it is necessary to ensure that the arc burns for not less than two half-cycles. For this purpose the circuit is provided with ignition circuits consisting of capacitance, inductance and a fuse shunted across the circuit breakers. The voltage of the arc-igniting circuit is applied until the current becomes zero. In another variant of the circuit, after the current has been interrupted a recovery voltage is applied to the circuit breaker. When the circuit breaker under test breaks down, the circuit that re-ignites the arc in the protective circuit breaker operates. The recovery-voltage circuit may be connected in several ways. Depending upon the polarity of the recovery voltage and the

Card 1/3

An installation for testing ... S/196/61/000/009/034/052
E194/E155

voltage of the current source there is applied to the test circuit breaker either the sum of the two voltages or the recovery voltage alone. The latter may be applied either before or after interruption of current. Accuracy of synchronisation is very important. The requirements in respect of accuracy of synchronisation are relaxed if, after the current has been interrupted, the recovery voltage of the current circuit acts in the first instant. During this time the protective circuit breaker is shunted by capacitance so that the recovery voltage of the disconnected current circuit should be almost completely applied to the tested breaker. Sometimes, the recovery voltage is applied to the tested breaker long before the current in it is interrupted. In tests with synthetic circuits it is possible for the wave-shape of the disconnected current to be distorted from the sinusoidal shape. Distortion of current wave-shape in the last half-cycle but one does not influence the arc extinction process. Increasing the rate of change of current by 10-15% does not influence the accuracy of testing. Reduction of the current amplitude in the last half-cycle may be prevented by reducing the inductance of the disconnected current circuit at the start of the last half-cycle.
Card 2/3

An installation for testing ... S/196/61/000/009/034/052
E194/E155

It is important to avoid both distortion of the current curve at the end of the last half-cycle and reduction in its duration. An effective precaution is to introduce a little inductance into the circuit after the current has reached peak value in the last half-cycle. An alternating voltage is used to introduce additional inductance or e.m.f. to compensate the voltage drop on the arc in the disconnected circuit. An independent three-phase installation is used for this purpose. The current may be increased in the last half-cycle by transferring the circuit breaker in the middle of the last half-cycle from the circuit of phases A and B to that of phases A and C.
9 illustrations. 9 literature references.

[Abstractor's note: Complete translation.]

Card 3/3

9.4120
13.2940

S/194/61/000/008/047/092
D201/D304

AUTHOR: Akodis, M.M.

TITLE: Artificial gas-filled rectifiers test circuits

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1961, 29, abstract 8 G227 (Tr. Ural'skogo politekhn. in-ta, 1960, v. 77, 60-70)

TEXT: The analysis is given of an equivalent circuit for testing gas-filled rectifiers. The circuit is based on that suggested by the author in 1940 for testing contact breakers. The arrangement is divided into a ВН (VN) and a НН (NN) circuit [Abstracter's note: VN and NN are not defined]. The VN circuit reproduce the forward and inverse voltages at the rectifier, the NN circuit reproduces the shape of direct current. Different variants of similar arrangements are considered which make it possible to obtain as near as possible the operating conditions of various types of rectifying installations. [Abstracter's note: Complete translation]

Card 1/1

S/194/61/000/008/046/092
D201/D304

Artificial method...

period with reversed voltage. In the experimental circuit the voltage across the rectifier is zero after extinction for the whole of the de-ionization time, after which the direct voltage sharply increases. Methods are considered of more accurate reproduction of the voltage waveform at the rectifier during the non-conducting part of the period; methods are also considered of reproducing the direct current shape by means of additional circuits. The experiments were carried out with a thyratron model. 3 references.
[Abstracter's note: Complete translation]

Vc

Card 2/2

AKODIS, M.M., doktor tekhn.nauk.prof.; KORZUN, P.A., inzh.

Voltage recovery on switch contacts subsequent to the cutoff of limiting power. Izv. vys. ucheb. zav.; energ. 4 no.7:10-16 Jl '61. (MIRA 14:7)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova.
(Electric power distribution) (Electric protection)
(Electric switchgear)

AKODIS, M.M., doktor tekhn.nauk, prof.; KORZUN, P.A., inzh.

Restoration of potential on the contacts of a switch while disconnecting a short-circuit at some distance from the switch. Izv. vys. ucheb. zav.; energ. 4 no.8:1-8 Ag '61. (MIRA 14:8)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova.
(Electric switchgear)
(Electric networks)

AKODIS, M.M., doktor tekhn.nauk, prof.; KORZUN, P.A., inzh.

Voltage regeneration at the contacts of a switch during the disconnecting of short-circuited transformers in electric networks with voltages exceeding 110 kv. Izv.vys.ucheb.zav.; energ. 5 no.4:16-25 Ap '62. (MIRA 15:5)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova. Predstavlena kafedroy tekhniki vysokikh napryazheniy.
(Electric power distribution)

AKOPIS, M.M., doktor tekhn.nauk, prof.; KORZUN, P.A., inzh.

Speed of the voltage recovery of cutouts during the disconnection of short-circuited transformers. Izv.vys.ucheb.zav.; energ. 5 no.5:1-6 My '62. (MIRA 15:5)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova. Predstavlena kafedroy tekhniki vysokikh napryazheniy.
(Electric cutouts) (Electric transformers)

AKODIS, Mikhail Mironovich, doktor tekhn. nauk, prof.; KATSNEL'SON, Semen Markovich, inzh.

Multimesh series-type electronic frequency converter with joint cathodes. Izv. vys. ucheb. zav.; elektromekh. 5 no.11:1274-1279 '62. (MIRA 16:1)

1. Zaveduyushchiy kafedroy tekhniki vysokogo napryazheniya Ural'skogo politekhnicheskogo instituta (for Akodis).
2. Kafedra tekhniki vysokogo napryazheniya Ural'skogo politekhnicheskogo instituta (for Katsnel'son).

(Frequency changers)
(Electric current converters)

AKODIS, M.M., doktor tekhn.nauk; KORZUN, P.A., inzh.

Calculations of voltage regeneration in large electric power systems. Elek. sta. 33 no.6:46-50 Je '62. (MIRA 15:7)
(Electric power distribution)

AKODIS, M.M., doktor tekhn.nauk, prof.; KUZNETSOV, V.I., inzh.

Improvement of MKP-160 switches. Izv.vys.ucheb.zav.; energ. 5 no.11:1-9 N '62. (MIRA 15:12)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova. Predstavlena kafedroy tekhniki vysokikh napryazheniy.
(Electric switchgear)

AKODIS, M.M., prof., doktor tekhn. nauk, red.; KHIRVONEN, Kh.P., dots., kand. tekhn. nauk, red.; KONSTANTINOV, A.G., inzh., red.

[Transactions of the Interuniversity Scientific and Technical Conference on Overvoltages] Trudy Mezhvuzovskogo nauchno-tekhnicheskogo soveshchaniia po perenapriazheniiam. Sverdlovsk, Izd.UPI, 1963. 2 v. (MIRA 17:4)

1. Mezhvuzovskoye nauchno-tekhnicheskoye soveshchaniye po perenapryazheniyam, Sverdlovsk, 1961.

ACCESSION NR: AT4046209

SOURCE: Mezhvuzovskoya nauchno-tekhnicheskoye soveshchaniye po [illegible]

of 3000 ohm and overvoltage arresters of type RVM[illegible]

[illegible] overvoltages of $2\ U_{ph}$ and insulation to $1.8\ U_{ph}$, plus the use of special cross-compensating inductances and switching arrangements [illegible]

Card 1/3

ACCESSION NR: AT4046208

Card

L 1/6 ...

ACCESSION NR: AT4046208

ASSOCIATION: Problemnaya laboratoriya elektricheskikh mashin i apparatov Ural'skogo politekhnicheskogo instituta imeni S. M. Kirova [illegible] Laboratory of Electrical Machines and Equipment, Polytechnical Institute im. S. M. Kirov]

SUBMITTED: 25Feb63 ENCL: 00 SUB CODE: EE

Card 3/3

AKODIS, Mikhail Mironovich, doktor tekhn.nauk, prof.; MASLENNIKOV, Deler Semenovich, assistent

Increase in the efficiency of systems for testing switches using synthetic networks. Izv. vys. ucheb. zav.; elektromekh. 6 no.3: 390-399 '63. (MIRA 16:5)

1. Zavenuyushchiy kafedroy tekhniki vysokikh napryazheniy Ural'skogo politekhnicheskogo instituta (for Akodis). 2. Ural'skiy politekhnicheskiy institut (for Maslennikov).
(Electric switchgear—Testing)

AKODIS, M.M., doktor tekhn.nauk, prof.; BRONNIKOV, V.I., inzh.

Overvoltage protection of long-distance power transmission lines. Izv. vys. ucheb. zav.; energ. 6 no.8:1-8 Ag '63. (MIRA 16:9)

1. Ural'skiy politechnicheskiy institut imeni Kirova. Predstavlena kafedroy tekhniki vysokikh napryazheniy.
(Electric power distribution)

AKODIS, M.M., doktor tekhn.nauk, prof.; MASLENNIKOV, D.S., inzh.

Decrease in the switching distortions of a current in switchgear testing systems using synthetic circuits. Izv. vys. ucheb. zav.; energ. 6 no.10:22-27 O '63. (MIRA 16:12)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova. Predstavlena kafedroy tekhniki vysokikh napryazheniy.

AKODIS, M.M., doktor tekhn. nauk; MASLENNIKOV, D.S., inzh.

Increase in the power rating of systems for testing switches using synthetic circuits. Elektrotekhnika 34 no.10:33-37 O '63. (MIRA 16:11)

AKODIS, M. M.; BRONSHTEYN, A. M.; BRON, O. B.; BUTKEVICH, G. V.; ZAKHAROV, S. N.; KAPLAN, V. V.; MASLENNIKOV, D. S.; RUDNYY, V. M.

"Some Problems of Constructing High Power Circuit-Breakers."

report submitted for Intl Conf on Large Electric Systems, 20th Biennial Session, Paris, 1-10 Jun 64.

AKODIS, M.M., doktor tekhn. nauk, prof.; KATSNEL'SON, S.M., inzh.

Electronic converter with increased frequency. Elektrichestvo no.1:54-59 Ja '64. (MIRA 17:6)

1. Ural'skiy politekhnicheskiy institut imeni Kirova (for Akodis).
2. Ural'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta.

AKODIS, Mikhail Mironovich, dr. tekhn. nauk, prof. GKL'MAN, Moris Vladimirovich, aspirant

Study of the grid circuit of a multistage frequency converter. Izv. vys. ucheb. zav. elektromekh. 7 no.4:428-435 '64 (MIRA 17:7)

1. Kafedra tekhniki vysokikh napryazheniy Ural'skogo politekhnicheskogo instituta. 2. Zaveduyushchiy kafedroy tekhniki vysokikh napryazheniy Ural'skogo politekhnicheskogo instituta (for Akodis).

AKODIS, M.M., doktor tekhn. nauk, prof.; GRITSUK, A.A., inzh.

Effectiveness of dischargers in limiting internal overvoltages of long-distance a.c. power transmission lines. Izv. vys. ucheb. zav.; energ. 7 no.10:25-31 O '64. (MIRA 17:12)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova. Predstavleno kafedroy tekhniki vysokikh napryazheniy.

LYSKOV, Yu.I. (Moskva); SOKOLOV, N.N. (Moskva); AKODIS, M.M., doktor tekhn. nauk (Sverdlovsk); GRITSUK, A.A., inzh. (Sverdlovsk)

Problem of long-distance power transmission. Prospects for increasing the voltages of overhead power transmission lines. Elektrichestvo no.10:81-85 O '64. (MIRA 17:12)

AKODIS, M.M., doktor tekhn. nauk, prof.; GEL'MAN, M.V., inzh.

Use of regulated silicon rectifiers in ultrasonic frequency converter networks. Elektrichestvo no.3:26-30 Mr '65. (MIRA 18:6)

1. Ural'skiy politekhnicheskiy institut imeni Kirova.

L 22186-66 EWA(h)/EWT(1)

ACC NR: AP6012959 SOURCE CODE: UR/0143/65/000/003/0014/0022

AUTHOR: Akodis, M. M. (Doctor of technical sciences; Professor); Gel'man, M. V. (Engineer)

53
B

ORG: Ural Polytechnic Institute im. S. M. Kirov (Ural'skiy politekhnicheskiy institut)

TITLE: Automatic control of a sequential frequency converter 25

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy. Energetika, no. 3, 1965, 14-22

TOPIC TAGS: automatic control, electronic circuit, frequency converter, electronic rectifier, electric resistance, electric inductance, electric capacitance

ABSTRACT: The possibilities of automatic control of ion or semiconductor sequential inverters, so that they may be used for technological heat processes, is analyzed. An approximate method is developed for design of a sequential inverter, loaded with a parallel oscillating circuit. Control criteria are analyzed, with the goal of keeping the operation of the inverter constant with variation in the load. Contactless operation, most simply achieved by changing the control frequency, is seen to be preferable to contact control by switching of compensating capacitances. A phase sensitive rectifier can be used as a transducer in controlling the frequency of the inverter, in order to keep it in resonance with the frequency of the load circuit. This type of control is most suitable where there are only slight variations of the ratio of load resistance to inductance in normal operation.

UDC: 621.314.26-523.2

Card 1/2

L 22186-66

ACC NR: AP6012959

O

Where variations in r_1/L_1 are greater, control can be achieved better by using constancy of inverter input current or of voltage at the commutating capacitance, which also leads to constancy of power in the load circuit, as a control criterion. Orig. art. has: 6 figures, 22 formulas, and 1 table. [JPRS]

SUB CODE: 09 / SUBM DATE: 27Apr64 / ORIG REF: 003 / OTH REF: 001

Card 2/2 nst

AKODIS, M.M., doktor tekhn.nauk, prof.; KORZUN, P.A., kand.tekhn.nauk

Choice of the parameters of a voltage recovery circuit in systems for testing switches. Izv.vys.ucheb.zav.; energ. 8 no.10:105-108 O '65. (MIRA 18:10)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova. Predstavlena kafedroy tekhniki vysokikh napryazheniy.

L 04452-67

ACC NR: AP6014144 (A) SOURCE CODE: UR/0143/65/000/012/0001/0007

AUTHOR: Akodis, M. M. (Doctor of technical sciences, Professor); Gritsuk, A. A. (Engineer); Smetanin, V. N. (Engineer) 23 B

ORG: Ural Polytechnic Institute im. S. M. Kirov (Ural'skiy politekhnicheskiy institut)

TITLE: Switching surges on 500-kv lines and required protection against them

SOURCE: IVUZ. Energetika, no. 12, 1965, 1-7

TOPIC TAGS: electric power transmission, overvoltage, switching surge

ABSTRACT: Various ideas and considerations re switching surges and protection against them are set forth; the probabilities of surges are taken into account. Insulator strings are tested by 1—4 msec rise-time impulses in the SSSR and by 250—300 μsec impulses in the US (E. H. Gehrig et al., IEEE Trans., PAS, no. 1, 1964, 41-48). The number of tests is sufficient for calculating the standard probability distribution in the SSSR. The insulation level of a transmission line should be set: (a) on the basis of the switching-surge dry flashover voltage for

Card 1/2 UDC: 621.316.91.027.85

L 04452-67
ACC NR: AP6014144

lines without lightning arresters or (b) on the basis of the wet flashover voltage for lines protected by lightning arresters; no extra elements in the insulator string are required. The well-established opinion that surge voltages on no-arrester lines may reach 3 times phase voltage ($3U_{ph}$) is questionable. The insulation level of a 500-kv line equipped with circuit-breakers that preclude dangerous arc re-striking is largely determined by the surges that follow automatic-reclosing operations and that substantially depend on the power network configuration; only the surges arising under symmetrical 3-phase conditions need be taken into account. Simulated tests have shown that the probability of surges exceeding 2.6 U_{ph} on a 420-km 500-kv line, operating in a transmission network, is very low. The surges exceeding 2.3 U_{ph} have occurred rather seldom on actual 500-kv lines; in some cases, 500-kv lines should be protected by lightning arresters, in others, by resistors shunting the arc-quenching circuit-breaker contacts. Orig. art. has: no figures, formulas, or tables.

SUB CODE: 09,10/ SUBM DATE: 21Jun65 / ORIG REF: 013 / OTH REF: 003

Card 2/2

L 39634-66 EWT(1) GD-2

ACC NR: AP6002881 SOURCE CODE: UR/0286/65/000/024/0040/0040

AUTHOR: Akodis, M. M.; Katsnel'son, S. M.; Kurashko, Yu. I.

ORG: none

TITLE: Frequency converter with a "nonsalient" d-c circuit, Class 21, no. 176974

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 40

TOPIC TAGS: frequency converter, direct current, transformer, electron tube, capacitor, frequency doubling

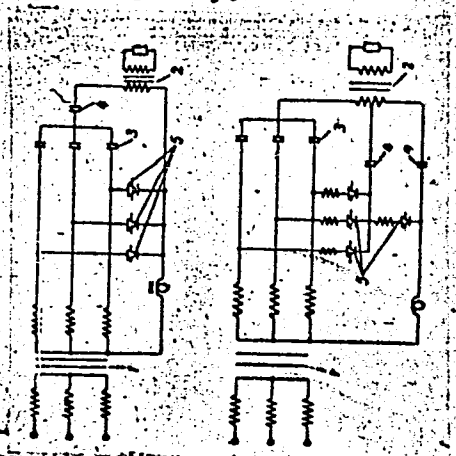
ABSTRACT: The frequency converter with a "nonsalient" d-c circuit, consisting of a power transformer, electron tubes, filter and commutating capacitors, and an output transformer, is characterized by the fact that three filter capacitors joined in a star are connected at the dead center to the output transformer by the commutating capacitor, and phase by phase to the leads of the secondary winding of the power transformer and to the anodes of three electron tubes, whose cathodes are joined and connected to the primary winding of the output transformer. This is done in order to simplify the frequency converter and to increase the utilization of the electron tubes. The converter, is characterized by the fact that a fourth electron tube is connected to

Card 1/2

L 39634-66

ACC NR: AP6002881

the joined cathodes of the three above mentioned electron tubes. This fourth electron tube is also connected through capacitors to the center point of the winding of the output transformer by the anode and to the end of this winding by the cathode. This is done in order to double the frequency.



1. power transformer
2. output transformer
3. filter capacitors
4. Commutating capacitors
5. electron tubes

SUB CODE: 09 SUBM DATE: 25Mar63

Card 2/2 MLP

KORYAKIN, V. I.; AKODUS, V. Ya.

Effect of wood moisture on the yield of the products obtained from the dry distillation of wood. Sbor. trud. TSNILKHI no.13:22-26 '59. (MIRA 13:10)

(Wood distillation) (Wood--Moisture)

AKODUS, V.Ya.

Purification and efficient utilization of the wastes from the production of powdered acetic acid. Gidroliz. i lesokhim.prom. 15 no.2:30-31 '62. (MIRA 18:3)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy lesokhimicheskoy promyshlennosti.

AKODUS, V.Ya.; TSEYTLIN, L.I.

Production of active carbon in a shaft furnace. Sbor.trud TSNILKHI no.13:27-38 '59. (MIRA 13:10)

(Carbon, Activated)

AKODUS, V.Ya.; GERGERT, I.E.; KURANOVA, A.V.

Decontamination of wastes from acetic acid manufacture with a simultaneous production of building materials. Gidroliz. i lesokhim. prom. 16 no.1:16-19 '63. (MIRA 16:2)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy lesokhimicheskoy promyshlennosti (for Akodus). 2. Opytnyy zavod Gosudarstvennogo vsesoyuznogo nauchno-issledovatel'skogo instituta tsementnoy promyshlennosti (for Gergert). 3. Dmitriyevskiy lesokhimicheskiy zavod (for Kuranova).
(Acetic acid) (Factory and trade waste) (Building materials)

AKODUS, YA. I., COL, (MED)

USSR/Medicine - Medicine, Military Nov 1947
Medicine - History

"The Thirtieth Anniversary of Soviet Military Medicine," Col I. D. Makarov (Med); Col Ya. I. Akodus (Med), 13½ pp

"Voyen-Medits Zhurnal" No 11

Briefly traces history of military medicine and outlines some of contemporary tasks and problems. For 30 years military might of Soviet Union has been increasing. Military medicine forced to keep pace with many new developments.

PA 53T71

PIROGOV, Nikolay Ivanovich; AKODUS, Ya.I., dotsent; KOCHERGIN, I.G., retsenzent toma; SMIRNOV, Ye.I., retsenzent toma; RUFANOV, I.G., otv. red.; BAKULEV, A.N., zam. otv. red.; MAKSIMENKOV, A.N., zam. otv. red.; PETROV, B.D., zam. otv. red.; VISHNEVSKIY, A.A., red.; GESELEVICH, A.M., red.; DAVYDOVSKIY, I.V., red.; KORNEYEV, V.M., red.; KOCHERGIN, I.G., red.; KROTKOV, F.G., red.; SEMKKA, S.A., general-mayor med.sluzhby,dots.red. toma;RUSANOV,S.A.,prof.red.toma; BEL'CHIKOVA, Yu.S., tekhn. red.

[Collected works in eight volumes] Sobranie sochinenii v vos'mi tomakh. Moskva, Gos.izd-vo med.lit-ry. Vol.5.[Principles of general military field surgery] Nachala obshchei voenno-polevoi khirurgii. Pt.1. [Sevastopol letters] Sevastopol'skie pis'ma. 1961. 638 p. (MIRA 15:1)

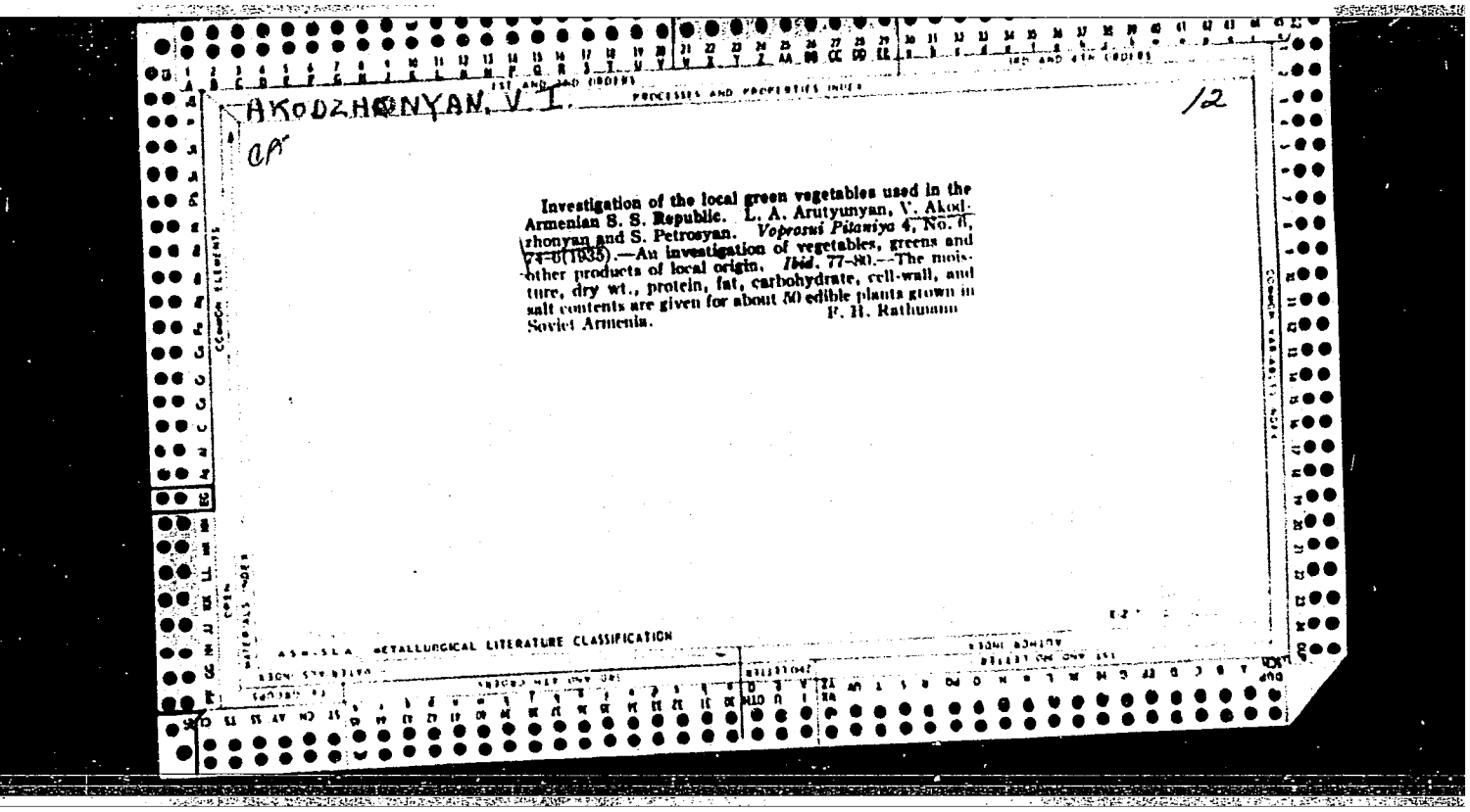
1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Kochergin). 2. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Smirnov).
(SURGERY, MILITARY)
(CRIMEAN WAR, 1953-1856--MEDICAL AND SANITARY AFFAIRS)

PIROGOV, Nikolay Ivanovich (1810-1881); AKODUS, Ya.I., dots.; GESELEVICH, A.M., prof., retsenzent toma; KOCHERGIN, I.G., retsenzent toma; SEMEKA, S.A., dots., general-mayor meditsinskoy sluzhby, red. toma; RUSANOV, S.A., prof., red. toma; RUFANOV, I.G., otv. red.; BAKULEV, A.N., zamestitel' otv. red.; MAKSIMENKOV, A.N., zamestitel' otv. red.; PETROV, B.D., zamestitel' otv. red.; VISHNEVSKIY, A.A., red.; DAVYDOVSKIY, I.V., red.; KORNEYEV, V.M., red.; KROTKOV, F.G., red.; BEL'CHIKOVA, Yu.S., tekhn. red.

[Collection of works in eight volumes] Sobranie sochinenii v vos'mi tomakh. Moskva, Gos. izd-vo med. lit-ry. Vol.6.[Fundamentals of general field surgery] Nachala obshchei voenno-polevoi khirurgii. pt.2.[(1866) Sevastopol letters, 1850-1855] (1866) Sevastopol'skie pis'ma, 1850-1855. 1961. 466 p. (MIRA 15:2)

1. Chlen-korrespondent Akademii meditsinskikh nauk (for Kochergin).

(Surgery, Military) (Pirogov, Nikolai Ivanovich, 1810-1881)

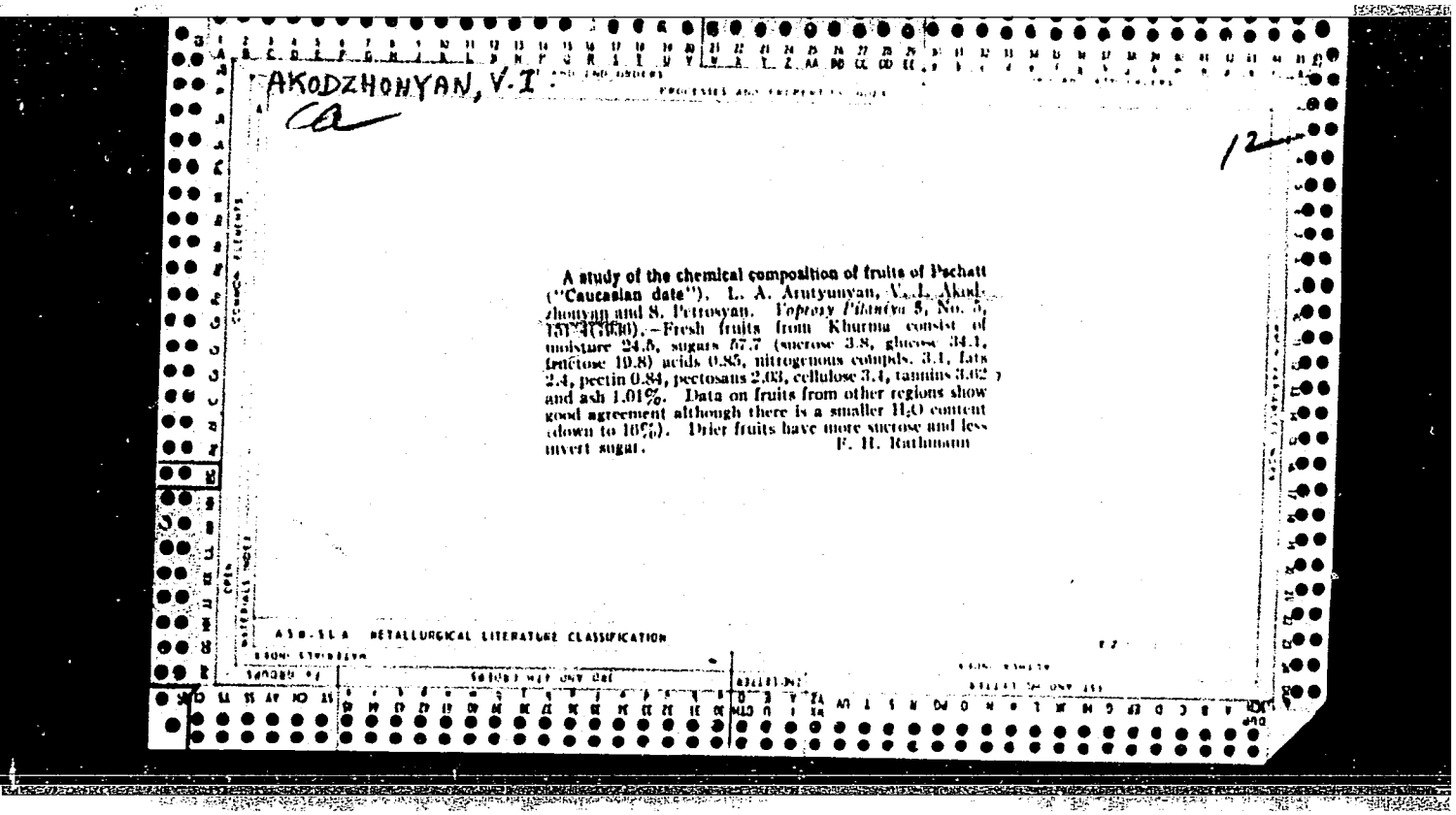


AKODZHONYAN, V. I.

12

Investigation of the local green vegetables used in the Armenian S. S. Republic. L. A. Arutyunyan, V. Akodzhonyan and S. Petrosyan. *Voprosui Pitaniya* 4, No. 6, 74–6(1935).—An investigation of vegetables, greens and other products of local origin. *Ibid.* 77–80.—The moisture, dry wt., protein, fat, carbohydrate, cell-wall, and salt contents are given for about 50 edible plants grown in Soviet Armenia. F. H. Rathmann

METALLURGICAL LITERATURE CLASSIFICATION



AKODZHONYAN, V.I.

12

A study of the chemical composition of fruits of Pschatt ("Caucasian date"). L. A. Arutyunyan, V. I. Akodzhonyan and S. Petrosyan. *Voprosy Pitaniya* 5, No. 5, 131-3(1936).—Fresh fruits from Khurma consist of moisture 24.6, sugars 57.7 (sucrose 3.8, glucose 34.1, fructose 19.8) acids 0.85, nitrogenous compds. 3.1, fats 2.4, pectin 0.84, pectosans 2.03, cellulose 3.4, tannins 3.62 and ash 1.01%. Data on fruits from other regions show good agreement although there is a smaller H_2O content (down to 10%). Drier fruits have more sucrose and less invert sugar. F. H. Rathmann

A58-51A METALLURGICAL LITERATURE CLASSIFICATION

AKOFMAN, G. M.

USSR/Medicine - Roentgenology FD-705

Card 1/1 : Pub. 132 16/22

Author : Akofman, G. M.

Title : Selective fluorography

Periodical : Vest. Rent. i Rad. 74-78, May/June 1954

Abstract : Developed a method of selective fluorography which consists of taking fluorographs of various parts of the lungs on a standard 24 x 36-centimeter frame and then placing these fluorographs in juxtaposition so as to obtain a single large fluorograph. Principal advantage lies in obtaining a large fluorograph having high clarity of detail. Five drawings. No references.

Institution : Irpensk Tuberculosis Sanitorium VTsSPS [All-Union Central Council of Trade Unions] (Head Physician - Semyatitskaya)

Submitted : --

AKOGORNV, V.

Organization and wages in longwall mining. Sots. trud no.10:78-84 O '56. (MLRA 9:11)

1. Stalino, Donbass, shakhta "Oktyabr'skaya" tresta "Kuybyshevugol". (Coal mines and mining) (Wages)

AKOL'F, T. A.

"Monograph on the Antelope-Saiga," Sub. 2 Jun 47, Moscow City Pedagogical Inst imeni V. P. Potemkin.

Dissertations presented for degrees in science and engineering in Moscow in 1947.

SO: Sum.No.457, 18 Apr 55

MIRONENKO, I.; AKOLELOV, V.

Distant radio stations. Radio no.5:26-27 My '65. (MIRA 18:5)

1. Nachal'nik kollektivnoy radiostantsii UAOKIF (for Akolelov).

AKOLINSKI, ST.

Odziez specjalna i sprzet ochrony osobistej (Special cloths and and personal safety equipment), by St. Akolinski. Reported in New Books, (Nowe Ksiazki), No. 6, March 15, 1956.

Akol'tsev, Ye.D.

AUTHORS: Kaplun, V.B., and Akol'tsev, Ye.D., Engineer 130-12-14/24

TITLE: Use of Removable Boxes for Removing Slag (Primeneniye vydvizhnykh korobov dlya udaleniya shlaka)

PERIODICAL: Metallurg, 1957, No.12, pp. 23 - 24 (USSR).

ABSTRACT: For the removal of slag from the pockets of an open-hearth furnace (bottom are a 42.5 m^2, total slag pocket volume 148 m^3) at the Kramatorsk Metallurgical Works, a lined box on wheels was adopted in April, 1956. The practice is outlined in this article. The slag pockets were lined with fireclay bricks and reinforced with cooled frames. The slag collecting box is made of 20 mm iron lined with asbestos and a combination of chrome-magnesite and fireclay bricks. The wheels of the box run on rails on the cast iron plates which rest on the bottom of the slag pocket. There is 1 figure.

ASSOCIATION: Kramatorsk Metallurgical Works imeni Kuybyshev (Kramatorskiy metallurgicheskiy zavod im. Kuybysheva)

AVAILABLE: Library of Congress

Card 1/1

Akol'tsev, Ye. D.

AUTHORS: Akol'tsev, Ye. D. and Kaplun, V. B. 130-3-6/21

TITLE: Use of manganese ore in the scrap-ore process. (Primeneniye margantsevoy rudy pri skrap-rudnom protsesse).

PERIODICAL: Metallurg, 1958, No.3, pp.11-13 (USSR).

ABSTRACT: In the production of rimming and killed carbon steels in the open hearth furnaces (actual charge weight 120 tons) at the imeni Kuybyshev (imeni Kuybysheva) works in Kramatorsk a high sulphur content on melting is liable to occur. The authors outline the factors leading to this (use of producer gas with 0.5% S, absence of mixer, type and amount of scrap in the charge) and the type of practice required (use of large quantity of limestone with the addition of manganese ore and bauxite during the ore boil). Experiments were carried out at the works with the object of increasing desulphurization and furnace productivity: 2 - 4 tons of manganese ore were charged under the limestone layer with the simultaneous reduction by 4 - 5 tons of the limestone and by 1 - 2 tons of the bauxite. The authors go on to describe three series of experimental heats carried out to study the influence of manganese ore on

Card 1/2

Use of manganese ore in the scrap-ore process. 130-3-6/21

furnace productivity, on bottom life and on steel quality and mechanical properties. The reduced quantity of non-metallics enabled a new charging sequence to be adopted giving improved heat-transfer. Comparative data for periods with and without manganese ore additions on the following are tabulated: MnO content in slag on melting and before deoxidation; Mn content in metal on melting and before deoxidation; basicity of slag before deoxidation; S-content in metal on melting and number of heats with over 0.07% S; S content in slags; rate of decarburization during the ore boil and refining boil. All data show improved values with the ore additions. No important changes in metal quality and properties resulted from the adoption of ore addition. The economic effect of the new technique is shown (Table 2) to be a saving of 780 roubles per heat. In September, October and November, 1957 the shop worked with the addition of 2 - 3 tons of manganese ore under the limestone: the duration of heats was reduced by 30 - 40 minutes and large savings were obtained through reductions in the non-metallics and deoxidizers consumed.

Card 2/2 There is 1 figure and 2 tables.

ASSOCIATION: Kramatorskiy metallurgicheskiy zavod imeni Kuybysheva (Kramatorsk Metallurgical Works imeni Kuybyshev)

AVAILABLE: Library of Congress

18.3200

77424
SOV/130-60-1-7/22

AUTHORS: Akol'tsev, Ye. D. (Chief of Metallurgical Laboratory), Kaplun, V. B. (Deputy Chief of Open-Hearth Shop)

TITLE: Increasing the Durability of Basic Roofs and Checkers

PERIODICAL: Metallurg, 1960, Nr 1 pp 14-16 (USSR)

ABSTRACT: In 1957 at the Kramatorsk Metallurgical Plant, two open-hearth furnaces were rebuilt for work with basic roofs. The furnaces work on scrap process and specialize in the production of rimmed steel. A cross-braced suspended design of the roof with reinforcement of the magnesite-chromite brickwork by metal rods and plates was adopted. The hot generator gas with addition of 10% coke gas was used as fuel. The investigation shows that low durability of roof is a result of cooling during hot repairs and soot-cleaning. The temperature of roof drops from 1,720° to 900° C, causing thermal spalling of 30 to 60 mm

Card 1/6

of brick layer. To prevent spalling, temperature of the roofs during hot repairs and soot-cleaning was raised up to 1,300° C using newly developed ejector burner working on coke gas. The capacity of burners (under the pressure of 3 to 4 atm) is 1,500 to 1,800 m^3/ hr of gas supply. The burning of the roof under the front wall, and especially at the third charging door, caused by suction of cold air, can be eliminated by decreasing the time of keeping the doors open. The above improvement increased the life of the roof up to 400 melts.

Increasing the Durability of Basic Roofs and Checkers

77424
SOV/130-60-1-7/22

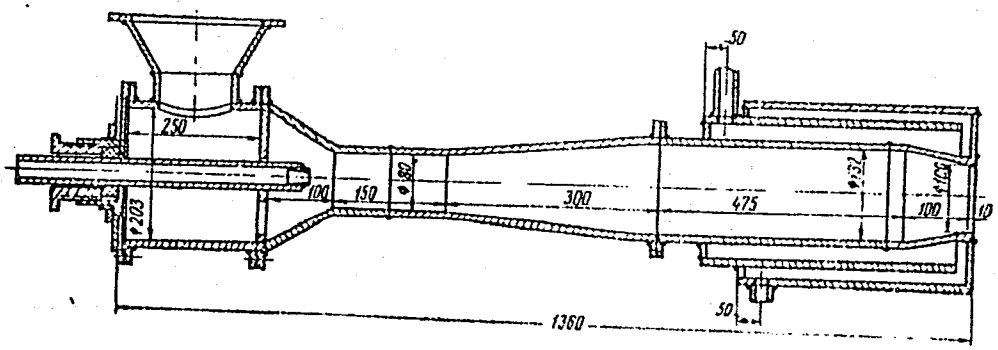


Fig. 1. Ejector burner for heating the roof during hot repairs.

Card 3/6

Increasing the Durability of Basic Roofs and Checkers

77424
SOV/130-60-1-7/22

For increasing the durability of checkers, the following measures were recommended: (1) The upper 6-7 rows of air checkers must be of forsterite or chamotte refractories. Below the forsterite checkers 8-9 rows of bricks must be of dinas and 12 rows of chamotte bricks. (2) The upper 5-6 rows of gas checkers should be of chamotte brick. The use of these bricks increased the life of checkers up to 450 melts. The bricks of lower rows can be utilized during repairs for additional service. Physicochemical properties of refractories are shown in Table 2.

Card 4/6

Table 2

Physicochemical properties of refractories used for checkers.

Refractory	Type	Refractoriness °C	Porosity %	Chemical Comp. %			
				SiO_2	MgO	Cr_2O_3	Al_2O_3
Dinoschromite	MP-4	1690	17,6	84,0	—	6,5	—
Magnesite Chromite	MRhS-3	1750—1800	18—24	—	69—75	8—18	—
Chamotte	PM-60	1670	30	64	—	—	32
Forsterite	F-3	1800	18—30	32	54	—	—
	F-1						

Card 5/6

Increasing the Durability of Basic Roofs and Checkers

77424
SOV/130-60-1-7/22

There are 2 figures; and 2 tables.

ASSOCIATION: Kramatorsk Metallurgical Plant (Kramatorskiy metallurgicheskiy zavod)

Card 6/6

ZAYTSEV, I.A.; KAZAKOV, A.A.; AKOL'TSEV, Ye.D.; UVAROV, V.V.

Production of St.5ps semikilled steel for helical rib bars.
Metallurg 7 no.7:20-21 Jl '62. (MIRA 15:7)
(Steel—Metallurgy)

AKOL'ZIN, D.A.; AKULOV, V.Ye.

Standing watch for safety. Put' i put.khoz. 7 no.9:32-33 '63.
(MIRA 16:10)

1. Pomoshchnik dorozhnogo revizora po bezopasnosti dvizheniya, g.Novosibirsk (for Akol'zin). 2. Starshiy revizor sluzhby puti, g.Novosibirsk (for Akulov).

AKOL'ZIN, L.Ye.; LISHBERGOV, V.D.; SHCHUKINA, G.F.; TSOY, D.; DUGIN, Ye.V., otv.red.; DUKALOV, M.F., red.; BUBYR', V.A., red.; TYUTYUNIK, Ya.I., red.; MONIN, M.I., red.; PANCHENKO, A.I., red.; VARSHAVSKIY, I.N., red.; BELYAYEV, F.R., red.; RABINKOVA, L.K., red.izd-va; KOROVENKOVA, Z.A., tekhn.red.

[Standard cross sections of mine workings]Tipovye secheniia gornykh vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. Vol.1. [Cross section of timber-supported workings for 1, 2, and 3-ton cars] Secheniia vyrabotok, zakreplennykh derevom dlia 1, 2 i 3-tonnykh vagonetok. 1960. 345 p. (MIRA 13:11)

1. Moscow. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht. (Mining engineering)

AKOL'ZIN, L.Ye.; BEDILO, V.Ye.; BOROZDOV, I.A.; VINARSKIY, I.S.; GOLOVATYUK, S.A.; NI[illegible]EV, G.P. Prinimali uchastiye: DATSUN, N.V.; ZHEGOV, V.T.; IVANITSKAYA, S.Yu.; KOMISSAROV, M.A.; KALINCHUK, I.G.; LISHBERGOV, V.D.; SERBERENNIKOVA, S.O.; FILIN, V.D. DUGIN, Ye.V., otv.red.; DUKALOV, M.F., red.; BUBYR', V.A., red.; TYUTYUNIK, Ya.I., red.; VARSHAVSKIY, I.N., red.; MONIN, M.I., red.; PANCHENKO, A.I., red.; BELYAYEV, F.R., red.; RABINKOVA, L.K., red.izd-va; BOLDYREVA, Z.L., tekhn.red.

[Types of mine cross section] Tipovye secheniia gornykh vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. Vol.5. [Cross section of mines with reinforced-concrete supports and hinge-hung crossbars for 1-, 2- and 3-ton railroad cars] Secheniia vyrabotok, zakreplennykh zhelezobetonnymi stoikami s sharnirno-podvesnym vekhniakom, dlia 1-, 2- i 3-tonnykh vagonetok. 1960. 411 p. (MIRA 13:12)

1. Khar'kov. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht. (Mine timbering)

AKOL'ZIN, L.Ye.; BEDILO, V.Ye.; BOROZDOV, I.A.; LISHBERGOV, V.D.; TSOY, D.; DUGIN, Ye.V., otv.red.; DUKALOV, M.F., red.; BUBYR', V.A., red.; TYUTYUNIK, Ya.I., red.; MONIN, M.I., red.; PANCHENKO, A.I., red.; BELYAYEV, F.R., red.; BABINKOVA, L.K., red.izd-va; KOROVENKOVA, Z.A., tekhn.red.

[Standard cross sections of mine workings] Tipovye secheniia gornykh vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. Vol.3. [Cross section of workings lined with concrete and artificial stone for 2 and 3-ton cars] Secheniia vyrabotok, zakreplennykh betonom i iskusstvennym kamnem, dlia 2- i 3-tonnykh vagonetok. 1960. 447 p. (MIRA 13:11)

1. Moscow. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht. (Mining engineering)

AKOL'ZIN, L.Ye.; BOROZDOV, I.A.; BEDILO, V.Ye.; TERESHKIN, F.N. Prinimali uchastiye: BELYAYEV, F.R.; BEREZHNOY, N.V.; BUBYR', V.A.; VARSHAVSKIY, I.N.; DUDKO, V.P.; YERSHOV, V.S.; DUGIN, Ye.V.; DUKALOV, M.F.; IVANOV, P.S.; KONAREVA, V.F.; MONIN, M.I.; MOGILKO, A.P.; PANCHENKO, A.I.; POKALYUKOV, S.N.; PRIKHOD'KO, N.D.; RUBIN, I.A.; SIDORENKO, P.A.; TYUTYUNIK, Ya.I.; KHMEL'NITSKIY, L.Ya.; BONDAR', V.I.; KRIVTSOV, A.T.; LOKSHIN, V.D.; SOFIYENKO, N.P. RABINKOVA, L.K., red.izd-va; BOLDYREVA, Z.A., tekhn.red.

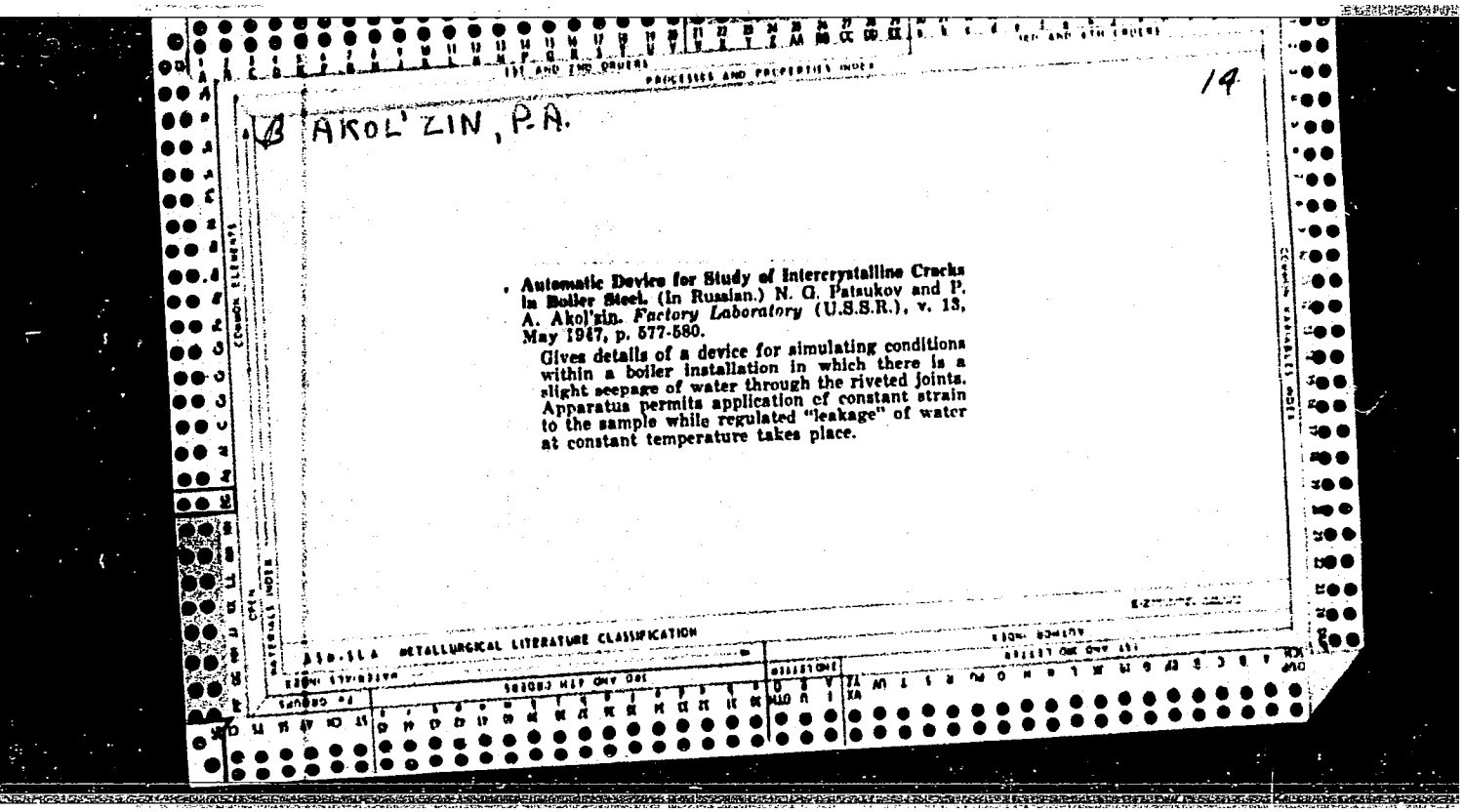
[Types of mine cross section] Tipovye secheniia gornykh vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. Vol.4. [Cross section of mines supported by a sectional reinforced-concrete lining of URP-11 panels for 1-, 2- and 3-ton railroad cars] Secheniia vyrabotok, zakreplennykh sbornoi zhelezobetonnoi krep'iu iz plit URP-II, dlia 1-, 2- i 3-tonnykh vagonetok. 1960. 278 p.
(MIRA 13:12)

1. Khar'kov. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht.
(Mine timbering)

VAVILOV, L.; USHAKOV, L.; DERKACH, A.; AKOL'ZIN, L.; YUTSOV, L., agronom; YEVMENENKO, L.

Successes of chemicalization. Zashch. rast. ot vred. i bol. 10 no.1:4-8 '65. (MIRA 18:3)

1. Nachal'nik Primorskoy stantsii zashchity rasteniy, Vladivostok (for Vavilov). 2. Nachal'nik Brestskoy stantsii zashchity rasteniy (for Ushakov). 3. Glavnyy agronom Brestskoy stantsii zashchity rasteniy (for Derkach). 4. Nachal'nik Pskovskoy stantsii zashchity rasteniy (for Akol'zin). 5. Mogilevskiy otryad po zashchite rasteniy (for Yutsov). 6. Nachal'nik Gomel'skoy stantsii zashchity rasteniy (for Yevmenenko).

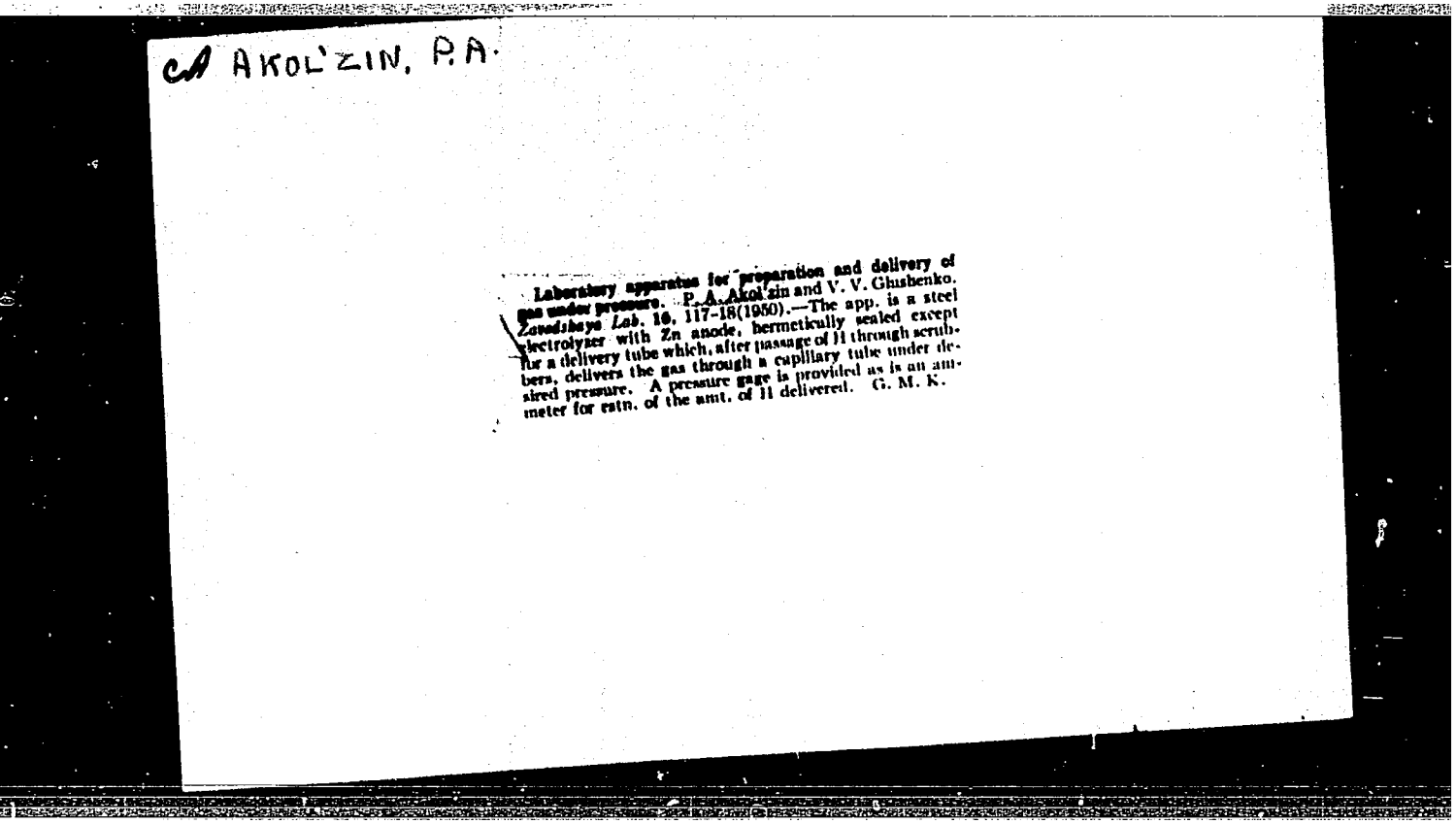


14

AKOL'ZIN, P.A.

Automatic Device for Study of Intercrystalline Cracks in Boiler Steel. (In Russian.) N. G. Patsukov and P. A. Akol'zin. *Factory Laboratory* (U.S.S.R.), v. 13, May 1947, p. 577-580.

Gives details of a device for simulating conditions within a boiler installation in which there is a slight seepage of water through the riveted joints. Apparatus permits application of constant strain to the sample while regulated "leakage" of water at constant temperature takes place.



AKOL'ZIN, P.A.

Laboratory apparatus for preparation and delivery of gas under pressure. P. A. Akol'zin and V. V. Glushenko. *Zavodskaya Lab.* 16, 117–18(1950).—The app. is a steel electrolyzer with Zn anode, hermetically sealed except for a delivery tube which, after passage of H through scrubbers, delivers the gas through a capillary tube under desired pressure. A pressure gage is provided as is an ammeter for estn. of the amt. of H delivered. G. M. K.

1. AKOL'ZIN, P. A.

2. USSR (600)

4. Corrosion and Anticorrosives

7. Appearance and prevention of inter-crystallite corrosion of steam boilers, Rab. energ., 2, No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

AKOL'ZIN, P. A. 231T41

USSR/Engineering - Boilers, Feed Water May 52

"Elimination of Oxygen From Water Without Heating," P. A. Akol'zin, Cand Tech Sci, V. V. Glushenko, Engr

"Iz v-s Teplotekh Inst" No 5, pp 26-28

Describes method developed at water lab of VTI for cold deoxygenation of water, based on mixing water subjected to deoxygenation with oxygen-free gas. States that deoxygenizing process is result of oxygen diffusion into this gas, which may be reused in installation after purification in special reactor filled with charcoal heated to 900°C. Finds that atm nitrogen serves as deoxygenizing gas, and installation requires no special filling with gas. Charcoal is only product consumed in process.

231T41

AKOL'ZIN, P.A.

"Deoxidizing Water Without Pre-Heating It," P.A. Akol'zin and V.V. Glushenko

The authors report on an inexpensive and effective method of deaerating boiler feed-water. The method consists in intensive afitation of unheated water to mix it under pressure with an oxygenless gas. The gas absorbs the oxygen, looses it in turn to coal or steel chips in hermetically sealed furnaces heated to 500°C assuring a continuous operation. (Drawing and formulae)...

SO: Za Ekonomiyu Topliva, No 6, June 1952 pp 34-36.

AKOL'ZIN, P. A.

AID - P-75

Subject : USSR/Engineering

Card : 1/1

Author : Akol'zin, P. A., Kand. of Eng. Sci., Moscow

Title : Thermodynamics of Corrosion of Steel by Oxygen

Periodical : Izv. V.T.I., v. 21, #3, 15-17, Mr 1952

Abstract : Corrosion of steel under water is presented as two processes of depolarization with discharge of hydrogen ions and ionization of molecular oxygen disolved in water. The corrosion effect due to presence of oxygen is initiated at an oxygen concentration above 40.5×10^{-20} mgr/lt. and due to the oxidation of iron ions above 40.5×10^{-12} mgr/lt. 4 Russian references (1938-49).

Institution : Feed Water Laboratory of the All-Union Heat Engineering Inst. im. F. E. Dzerzhinskiy (V.T.I.).

Submitted : September 25, 1951

AKOL'ZIN, P. A.

AID - P-73

Subject : USSE/Engineering

Card : 1/1

Author : Akol'zin, P. A., Kand. of Eng. Sci., Moscow

Title : Contribution to the Theory of Desorptive Dioxidation of Feed Water

Periodical : Izv. V.T.I., v. 21, #3, 7-9, Mr 1952

Abstract : The theory of desorption of gases (oxygen) is outlined as the exchange between the components in gaseous and liquid phases. An analytical expression is given for velocity of the process and for the reduction of oxygen concentration at different stages. The use of an ejector and the pre-heating of water has been found to be satisfactory for removal of oxygen. 2 charts and one table.

Institution : Feed Water Laboratory of All-Union Heat Engineering Inst. im. F. E. Dzerzhinskiy (V.T.I.).

Submitted : January 11, 1952

AKOL'ZIN, P. A.

net (3) 3

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Metallurgy and Metallography

Retarders for oxygen corrosion. P. A. Akol'zin and V. V. Glushenko. *Izvest. Vsesoyuz. Teplotekh. Inst.* 21, No. 9, 21–4(1952).—Ten mg./l. $NaNO_2$ is entirely satisfactory as an inhibitor of warm water corrosion of steel. The amount of $NaNO_2$ must be increased in the presence of chlorides and sulfates which tend to depassivate the surface, while nitrates are favorable by spreading the corrosion over the whole metal surface without, however, intensifying it.
W. M. Sternberg

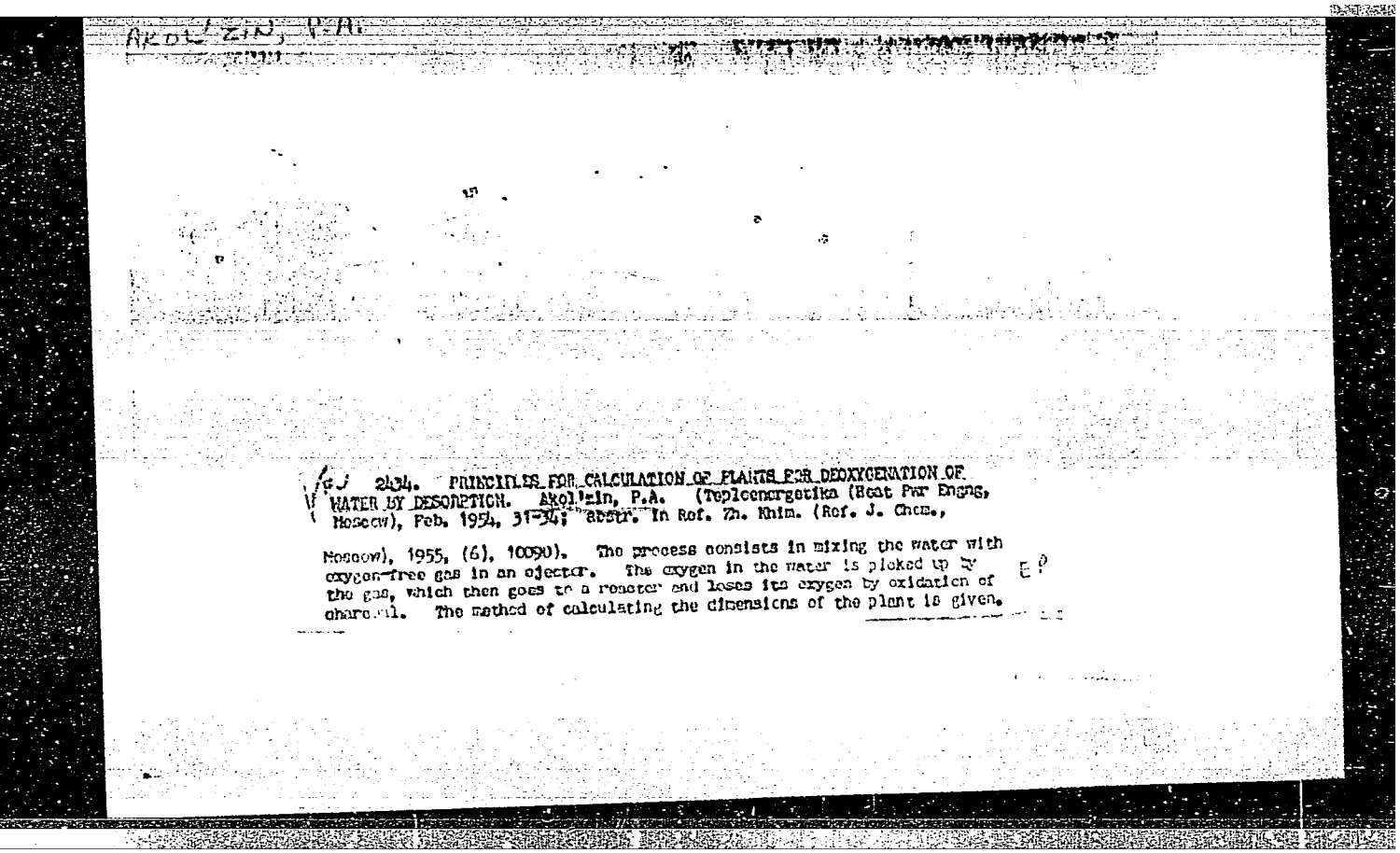
1. AKOL'ZIN, P. A.

2. USSR (600)

4. Water - Purification

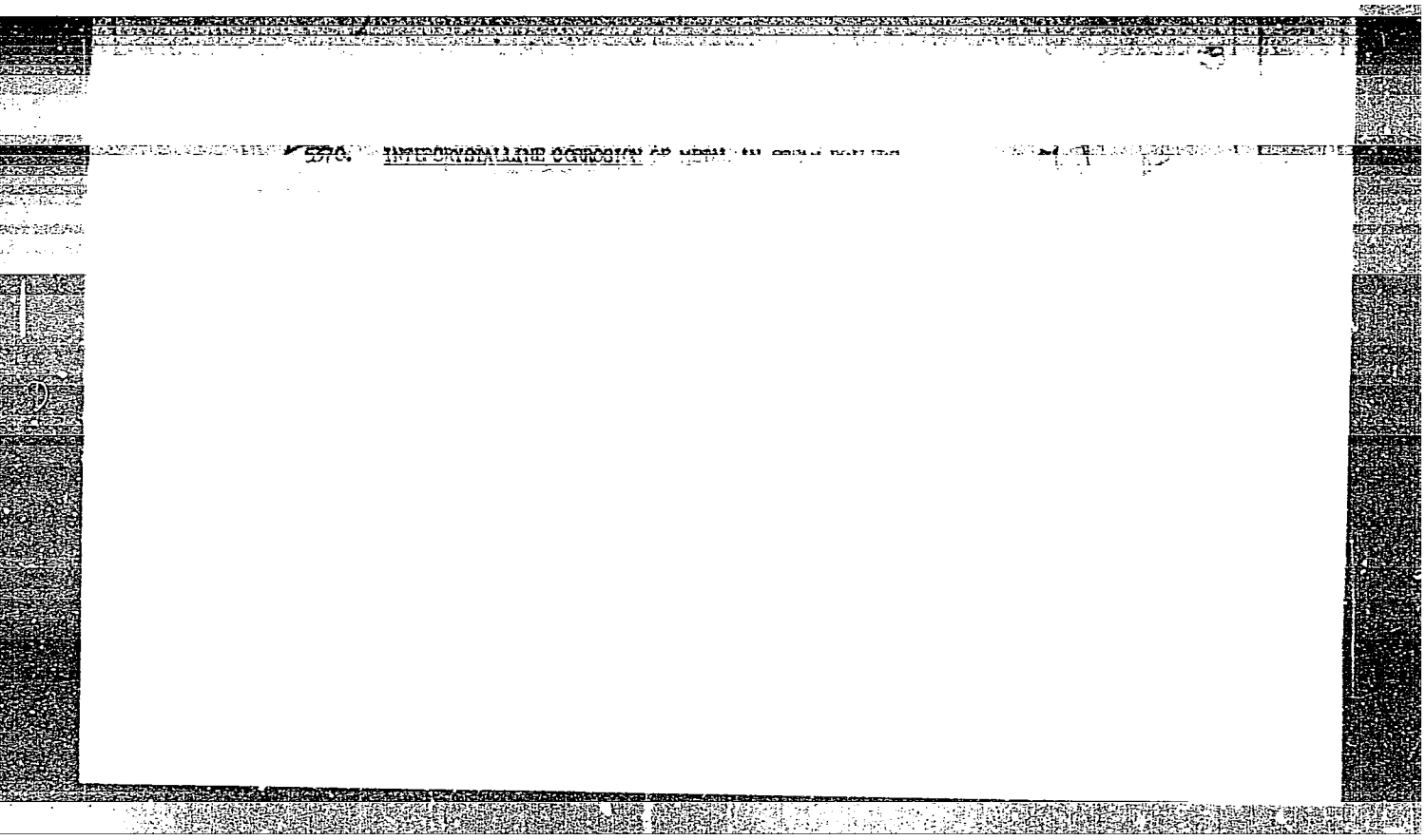
7. Separating free carbon dioxide from water. Izv. VTI 21 no. 12;21952.

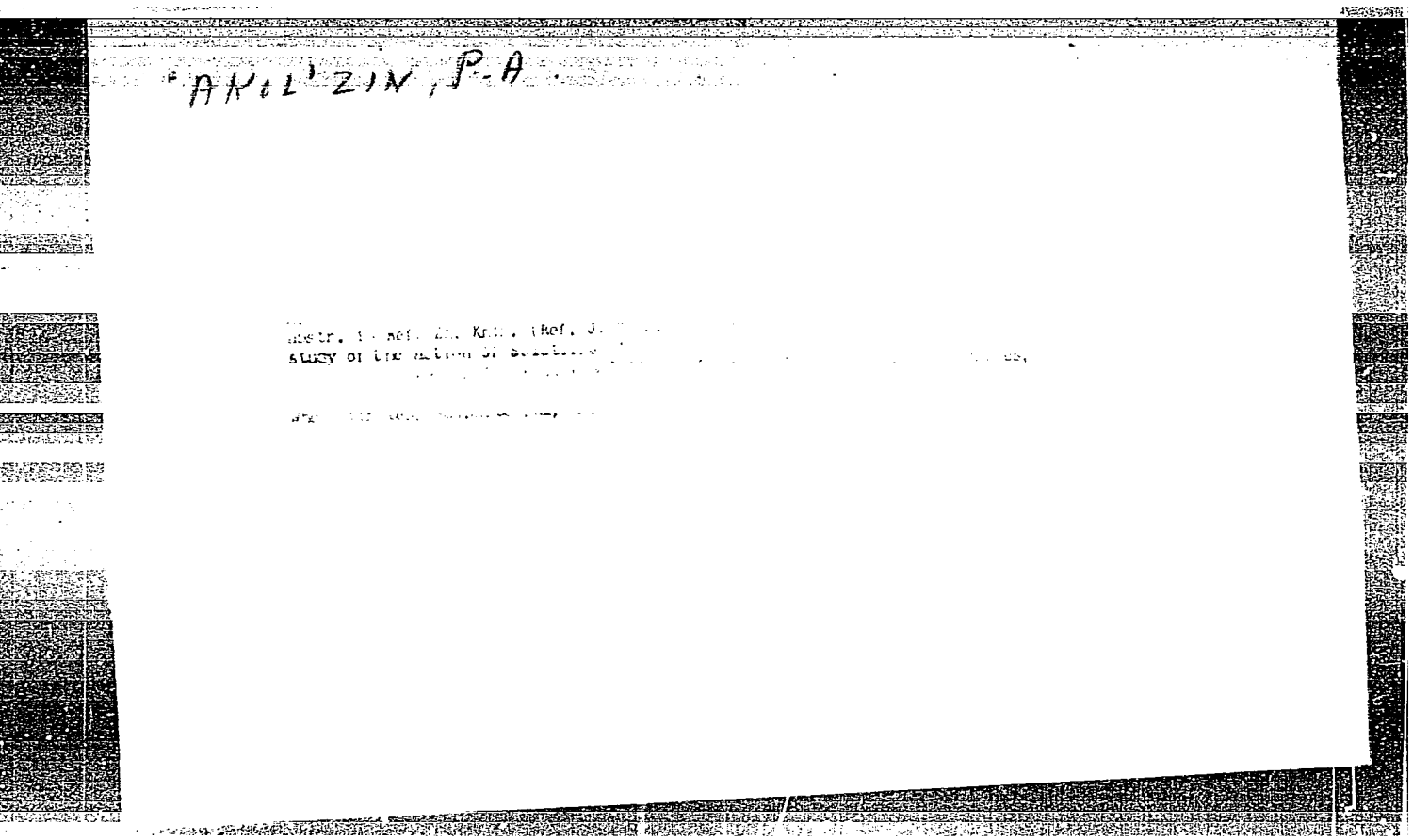
9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.



2434. PRINCIPLES FOR CALCULATION OF PLANTS FOR DEOXYGENATION OF WATER BY DESORPTION. Akol'zin, P.A. (Teploenergetika (Heat Pwr Engng, Moscow), Feb. 1954, 31-34; abstr. in Ref. Zh. Khim. (Ref. J. Chem., Moscow), 1955, (6), 10090). The process consists in mixing the water with oxygen-free gas in an ejector. The oxygen in the water is picked up by the gas, which then goes to a reactor and loses its oxygen by oxidation of charcoal. The method of calculating the dimensions of the plant is given.

USSR





AKOL'ZIN, P. A.

AID P - 2371

Subject : USSR/Engineering

Card 1/1 Pub. 28 - 5/13

Author : Akol'zin, P. A.

Title : Deoxidation of a large quantity of water

Periodical : Energ. Byul., 6, 14-20, Je 1955

Abstract : The VTI (All-Union Heat Engineering Institute) method of water deoxidation was successfully tried at one of the electric power plants to prevent excessive corrosion of pipes in its boiler system.
The installation for this purpose is fully described and illustrated with 4 sketches. The operation is recorded and supported by 2 tables.
The author asserts that the method can be satisfactorily applied even in larger installations, that is those capable of deoxidizing 200 to 300 tons per hour.

Institution: As above

Submitted : No date

AKOL'ZIN, P.A.

AID P - 3762

Subject : USSR/Electricity

Card 1/2 Pub. 26 - 4/29

Author : Akol'zin, P. A., Kand. Tech. Sci.

Title : Conditions of pure-phosphate alcalinity of water of high-pressure boilers

Periodical : Elek. sta., 10, 9-13, O 1955

Abstract : The author discusses the phosphate property of maintaining non-scale-formation conditions in feed-water treatment of high-pressure steam boilers. Studies made by the All-Union Heat Engineering Institute and the Office for the Organization and Rationalization of Regional Electric Power Plants and Networks at some of the largest high-pressure steam-electric power stations demonstrated that it is more economical to treat soft water (not over 50 p.p.m. hardness) with phosphates alone. The article gives a detailed description of various methods of water treatment.

AID P - 3762

Elek. sta., 10, 9-13, 0 1955

Card 2/2 Pub. 26 - 4/29

Three tables, 3 diagrams.

Institution : None

Submitted : No date

AKOL'ZIN, P.A.

USSR/Chemical Technology. Chemical Products and Their Application -- Water treatment. Sewage water, I-11

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5394

Author: Akol'zin, P. A.

Institution: None

Title: Purely Phosphatic Alkalinity Conditions of Feedwater for High Pressure Boilers

Original Publication: Elektr. stantsii, 1955, No 10, 9-13

Abstract: A procedure has been worked out for computing the amount of various phosphates that are added to feedwater of high pressure boilers in order to maintain the conditions of purely phosphatic alkalinity of the water. The NaOH which is formed in the course thereof, as a result of hydrolysis, does not reach a detrimental concentration level (of 5%). In maintaining conditions of an entirely phosphatic alkalinity the correlation between alkali value A (concentration of NaOH, mg/liter) and phosphate value P (concentration of PO_4^3,

Card 1/3

USSR/Chemical Technology. Chemical Products and Their Application -- Water treatment. Sewage water, I-11

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5394

Abstract: 142:40. From the above stated formulas it follows that with H = 0 conditions of purely phosphatic alkalinity are attained by addition of only Na_3PO_4. With H = 0.038 $A:E_m$ -- by addition of only Na_2HPO_4. At intermediate hardness levels addition of both reagents is necessary.

Card 3/3

AKOL'ZIN, Pavel Alekseyevich; SHAPKIN, Il'ya Fedorovich; BELOSEL'SKIY, B.S., redaktor; MINASYAN, Ye.A., redaktor izdatel'stva; KONYASHINA, A., tekhnicheskiy redaktor

[Water preparation in communal steam power installations] Vodopodgotovka v kommunal'nykh parosilovykh ustanovkakh. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1956. 135 p. (MIRA 10:2)
(Feed-water purification)